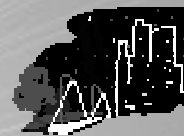




Member
Astronomical
League



Member
International
Dark-Sky Association

December Holiday Party!

Saturday, December 9, 2006, 6:00 p.m. EST
(dinner served at 6:30 p.m.)

Speaker: None but lots of fun!

Title: "Holiday Party" and Celebration of AAC's 19th Birthday!

Location: Home of Mark & Cindy Barnett, 3111 NW 18th Place,
Gainesville, Florida, (352) 373-2244

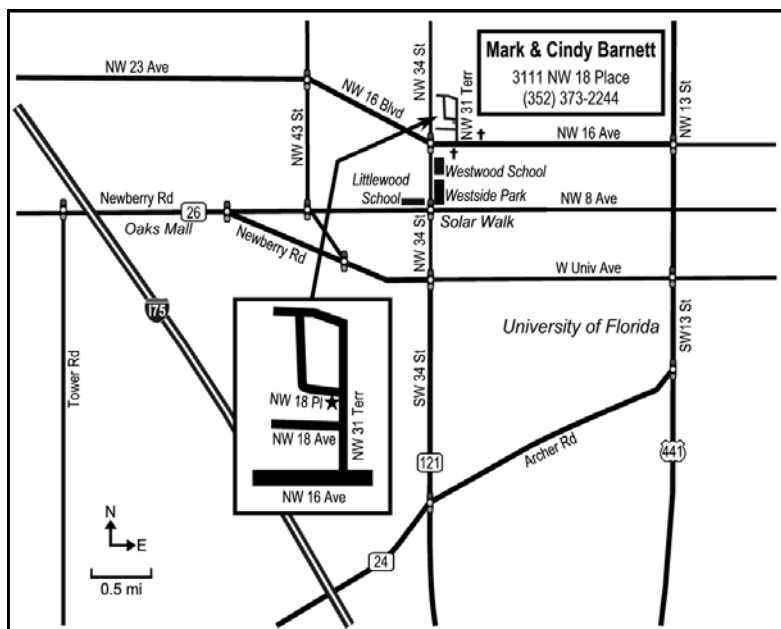
Preview: AAC will hold its annual December holiday party — a **pot-luck dinner**. (There will be no regular Tuesday meeting in December.) Club will buy drinks and paper products. (There will be a food sign up sheet at our October and November meetings — see below.)

Food to Bring: If you miss signing up at the October or November meetings, please respond to webmaster@floridastars.org and indicate what food dish you will bring:

- Wings, ham rolls, cheese & crackers, finger sandwiches, taco salad w/chips, dessert or other (please designate)
- Also indicate the number of adults and children (give ages) who will attend.

Last year we celebrated our 18th anniversary. This year we celebrate our club's 19th anniversary. Good food, games, our traditional astro slide quiz, lots of prizes, sci-fi space music, and an astro video!

Begins
approximately
at sunset.
Lasts till
whenever.





Greetings AAC Members and Friends,

With my last FirstLight message of 2006, I'd like to take a look back at this past year, and talk a bit about plans for next year for our club.

One of my goals when I accepted this office for 2006 was to help align AAC's activities and processes with my understanding of our organization's mission: "To assist AAC members in the enjoyment of their hobby of astronomy." I believe we have made significant progress toward that goal. I would like to share my thoughts on our accomplishments for 2006, and discuss some plans and goals for 2007.

At the beginning of the year, we took a look at the club's finances, to assure financial stability and health for the foreseeable future. We looked at our income and expenses, and decided that no changes were necessary in that regard.

We accepted and placed with custodians several donated telescopes, and developed an improved method of tracking scopes loaned out to members.

Thanks to Mike Toomey and several club members who opened their homes to us, we held a number of star parties, nearly one per month, for the year, including the one at Moondance Hill which included a tour of the University's of Florida's Rosemary Hill Observatory.

We held several excellent public outreach events, including the Friends of Paynes Prairie event January 7 at Hickory Ranch. We provided telescope views of the Sun, the late rising Full Moon, and of Saturn at "Starry Nights," a joint program of the Florida Museum of Natural History, the University of Florida Astronomy Department, and AAC on April 13. The Museum estimated attendance exceeded 600 persons. Finally, we provided over 10 telescopes and operators for the November 8 Transit of Mercury, again with the FLMNH and the UF Astronomy Department. Estimated attendance was about 325. We have developed better communication with both of these organizations, and expect to cooperate on several events in the future.

We have held monthly meetings every month except June (cancelled due to Tropical Storm Alberto), with Don Loftus providing excellent speakers each month. At Brent Abbatantuono's talk, "Heaven on Earth: Planetaria and their Development," we had a record attendance of over 70 people.

We now have a storage space for club assets, including library and ATM material. Chuck Broward took over the ATM group from Remi Trujillo, and the group is exploring interesting topics each month.

Marian Cohen spearheaded an effort to get AAC Logo shirts and caps for interested members. Speaking of Marian, I would like to express my very deep appreciation for her three years of faithful service as AAC Club Secretary.

What will the sky have for us next year? We will have two Lunar Eclipses in 2007. The Moon rises in eclipse the evening of March 3, and sets in eclipse the morning of August 28. While it would be great to have the eclipses occur when the moon is high overhead, I look forward to seeing the eclipsed Moon displaying the famous Moon Illusion (looking several times as large near the horizon as it looks overhead). Saturn will begin its climb into the evening sky by mid-January. Venus will begin its climb into the western sky in February. By July 1, they will appear in conjunction less than one degree apart low in the western sky at sunset. Jupiter, just above Scorpius in Ophiuchus, will begin its climb into the eastern sky beginning in June. By the end of September, it will be low in the west at sunset.

As far as the club goes, Scott McCartney, our new Programs chair, is lining up some good speakers for next year, and Mike Toomey is working on an interesting set of star parties. We will continue to improve our internal processes. Two I want to work on are Public Outreach, and a method to make our growing library available to interested members, while assuring that we don't lose any material. If you have any ideas for improvements in what we do, or how we do it, please feel free to contact me or another club officer or board member.

Bill Helms

Alachua Astronomy Club

President@FloridaStars.org



Alachua Astronomy Club, Inc.
2006 Officers

President: Bill Helms
 Phone: 352-542-8227
 Email: president@floridastars.org

Vice-President: Howard L. Cohen
 Phone: 352-495-1811
 Email: vicepresident@floridastars.org

Treasurer: Thomas Olmsted
 Email: treasurer@floridastars.org

Secretary: Marian Cohen
 Phone: 352-495-1811
 Email: secretary@floridastars.org

Board of Directors

Tandy Carter
 Scott McCartney
 Chuck Broward

Chairs and Committees:

Star Parties: Mike Toomey
 Phone: 352-361-1276
 Email: starparty@floridastars.org

Programs: Don Loftus
 Email: programs@floridastars.org

Webmaster: Howard L. Cohen
 Scott McCartney
 Email: webmaster@floridastars.org

FirstLight Editor: Jackie Owens
 Phone: 386-462-7366
 Email: firstlight@floridastars.org

ATM SIG: Chuck Broward
 Email: ATM@floridastars.org
 ATM Observer List:
ATM-Observers-L@lists.ufl.edu

Astronomical League Correspondent
 Charles S. Broward
 Phone: 352-475-1014

FirstLight is the bi-monthly publication of the Alachua Astronomy Club, Inc., Gainesville, Florida.

© Copyright 2006,
 Alachua Astronomy Club, Inc.

**Transit of Mercury Star Party
 Photos by Heidi Toomey.**

Above left: Francisco Reyes & Grad students, UF Astronomy

Above center: Telescope Set up

Above right: Tandy Carter

Right: Thomas Olmsted

For Sale! Christmas Presents!!!!

I have several items for sale:

1. A Intes MK-66 six inch Maksutov telescope. This is a russian made telescope that comes with documentation. It comes with a finderscope, a carry bag, and a solar filter, and instructions and a optical pedigree! A great scope! \$600.
2. A Super Polaris (by Vixen) German Equatorial Mount and tripod. This mount carries the above telescope with ease. It has the capability to use motors on both axes. At present it has a motor drive on the RA axis. It is \$350. For a additional \$100 I will include a digital controller and two extra motors. I will sell the digital controller and two motors separately for \$200.
3. Books! I have, in very nice condition:
 - Texereux--How to Make a Telescope \$15.
 - Burnham, Levy, etc--A Guide to Backyard Astronomy \$10.
 - Berry, Kanto, Munger--The CCD Camera Cookbook and An Introduction to Astronomical Image Processing \$15 for both, or \$30 including some of the hardware to build the cookbook Camera.
 - Ingalls--Amateur Telescope Making (3 volumes) A collectors set. \$40.
 - And a special book (a collector's item) NASA--Pioneer, first to Jupiter, Saturn, and Beyond \$20.

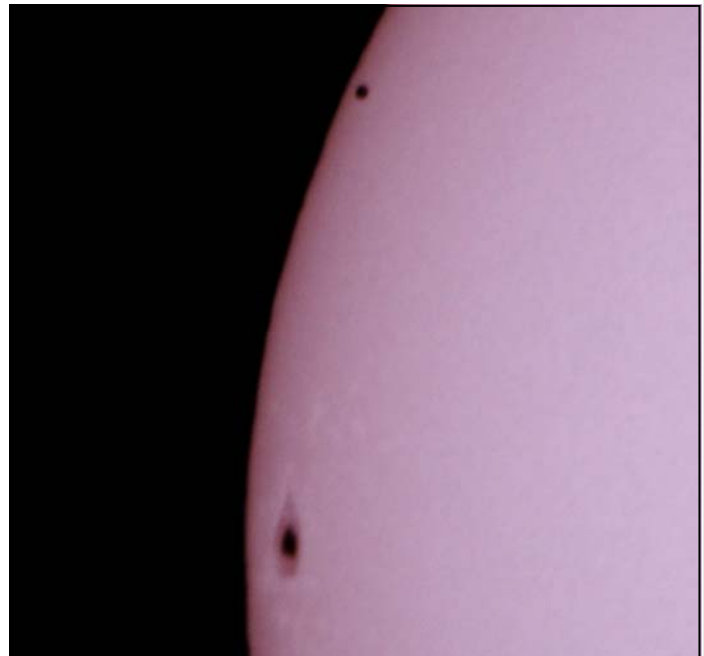
Call Chuck at 352-214-3085 or email cbroward@ufl.edu

Transit of Mercury & Star Party Pics



Top Photos: Loftus Farm Star Party, by Rich Russin;

Bottom four photos: Transit of Mercury, by Chuck Broward



Star Parties Thrived in Autumn, Look Forward to Spring

In October, we had our first star party at Gold Head State Park. Some 15 members attended; most stayed overnight. The temperature was mild and the mosquitoes were tolerable. The site was probably darker than we gave credit for – the eastern and southern tree-lines were so low that we could see light domes all the way from the east coast.

We searched intently for Comet Swan (more than a week before it brightened dramatically), targeted a handful of galaxies and rediscovered Uranus and Neptune. After midnight, Orionid meteors presented heightened activity – about 15 an hour according to Annie Welch, who enthusiastically recorded until 3am.

I think that everyone agreed that the park was very accommodating. The camp sites were economical and the spacious cabins were also a good value if you filled them with enough stargazers. Plans for our 2007 return are already in the works. I would appreciate more feedback as to whether we should make this a one or two night activity next October.

On November 18, we visited the Loftus Family Ranch, this time coinciding with the Leonid meteor shower. As temperatures dipped below freezing, guests gradually disappeared before the Leonids had a chance. Those that stuck it out were not rewarded, however, having observed only one Leonid by 2am. Still, the Taurid meteor shower did not disappoint, displaying a couple dozen meteors and no less than one bright fireball.

Owing to the very early sunset, Scott McCartney and I had time to add 26 objects to our Messier observing list. Our greatest challenge was identifying M73, a paltry four star “cluster” in Aquarius. More surprisingly, Messier missed the very bright (albeit small) planetary nebula NGC 7009 (Saturn Nebula) less than a degree away. The face-on spiral galaxies M74 and M77 were also new and challenging targets.

Because we had so many cloudy star parties in 2006, we'll continue the Messier observing list for at least the first quarter of 2007. I will continue to provide all the needed materials (except the telescopes and binoculars, of course) so that anyone may join in at any time. We'll also begin a new list sometime in 2007 – perhaps the double star list. From experience, this list can be done in just a few observing sessions – and will pay dividends for years to come. We'll run these lists concurrently if need be.

Our next star party will be held at Bob Jacob's on Saturday, January 20. Bob's site is a short 15 minute drive northwest of Gainesville. Messier hunters can focus their attention on the constellations Orion, Gemini, Canis Major, Puppis, Monoceros and Hydra among others.

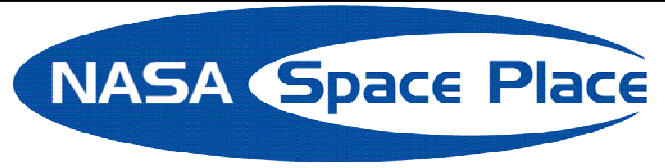
Looking farther ahead, the AAC has a special, private reservation for Hickory Ranch on April 14. We've been hoping that park management would allow us here for quite some time and we finally got the green light. If you haven't been to Hickory Ranch, your first opportunity will be during a public event in January or February, when we provide telescopes for the Friends of Paynes Prairie. Keep an eye out for notices on the AAC-L.

We'll also return to Gary Cook's residence on Little Orange Lake, Moondance Hill, Loftus Family Farm and Stargate Observatory in 2007. We'll have to put a strike through Star-B-Q and find something else for June. I'm also looking for site suggestions for next August and November.

Until then, clear skies!

Martian Devils

by Dr. Tony Phillips



Admit it. Whenever you see a new picture of Mars beamed back by Spirit or Opportunity, you scan the rocks to check for things peeking out of the shadows. A pair of quivering green antennas, perhaps, or a little furry creature crouched on five legs...? Looking for Martians is such a guilty pleasure.

Well, you can imagine the thrill in 2004 when scientists were checking some of those pictures and they *did* see something leap out. It skittered across the rocky floor of Gusev Crater and quickly disappeared. But it wasn't a Martian; Spirit had photographed a dust devil!

Dust devils are tornadoes of dust. On a planet like Mars which is literally covered with dust, and where it never rains, dust devils are an important form of weather. Some Martian dust devils grow almost as tall as Mt. Everest, and researchers suspect they're crackling with static electricity—a form of "Martian lightning."

NASA is keen to learn more. How strong are the winds? Do dust devils carry a charge? When does "devil season" begin—and end? Astronauts are going to want to know the answers before they set foot on the red planet.

The problem is, these dusty twisters can be devilishly difficult to catch. Most images of Martian dust devils have been taken by accident, while the rovers were looking for other things. This catch-as-catch-can approach limits what researchers can learn.

No more! The two rovers have just gotten a boost of artificial intelligence to help them recognize and photograph dust devils. It comes in the form of new software, uploaded in July and activated in September 2006.

"This software is based on techniques developed and tested as part of the NASA New Millennium Program's Space Technology 6 project. Testing was done in Earth orbit onboard the EO-1 (Earth Observing-1) satellite," says Steve Chien, supervisor of JPL's Artificial Intelligence Group. Scientists using EO-1 data were especially interested in dynamic events such as volcanoes erupting or sea ice breaking apart. So Chien and colleagues programmed the satellite to notice change. It worked beautifully: "We measured a 100-fold increase in science results for transient events."

Now that the techniques have been tested in Earth orbit, they are ready to help Spirit and Opportunity catch dust devils—or anything else that moves—on Mars.

"If we saw Martians, that would be great," laughs Chien. Even scientists have their guilty pleasures.

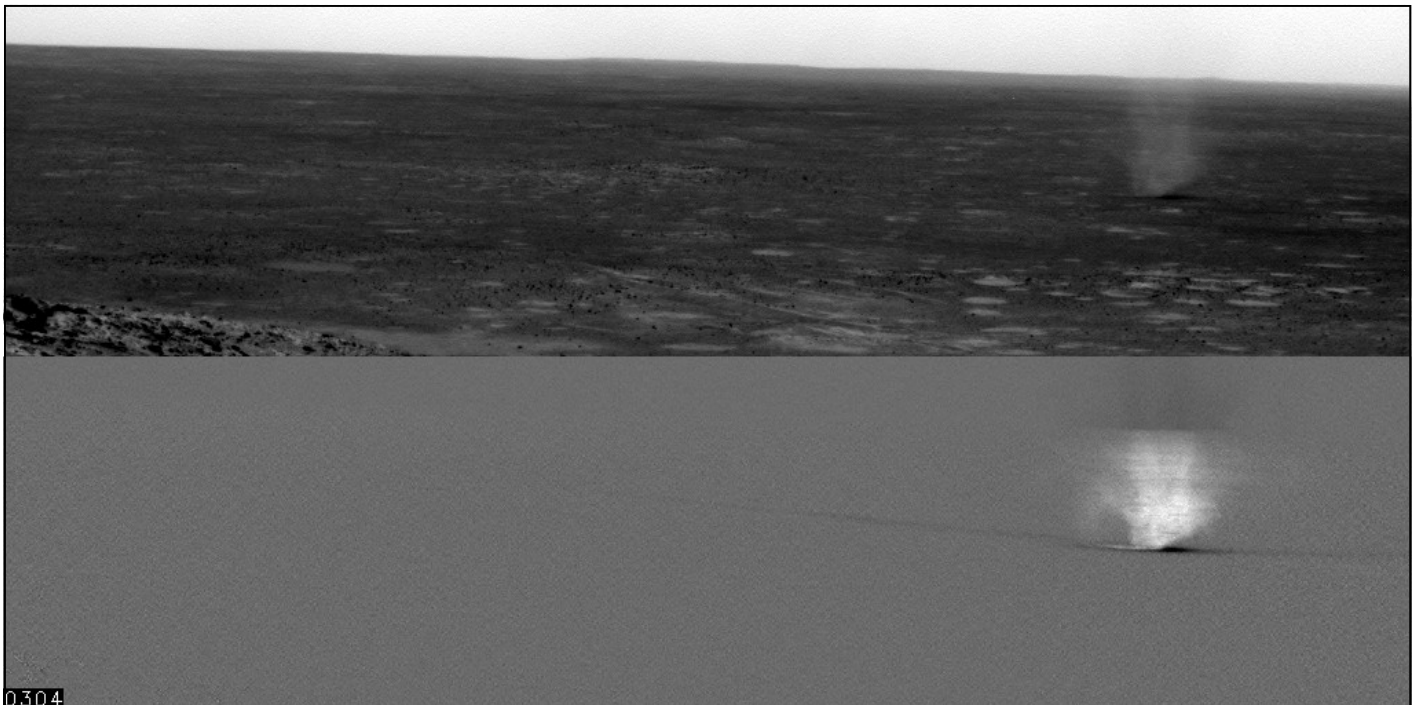
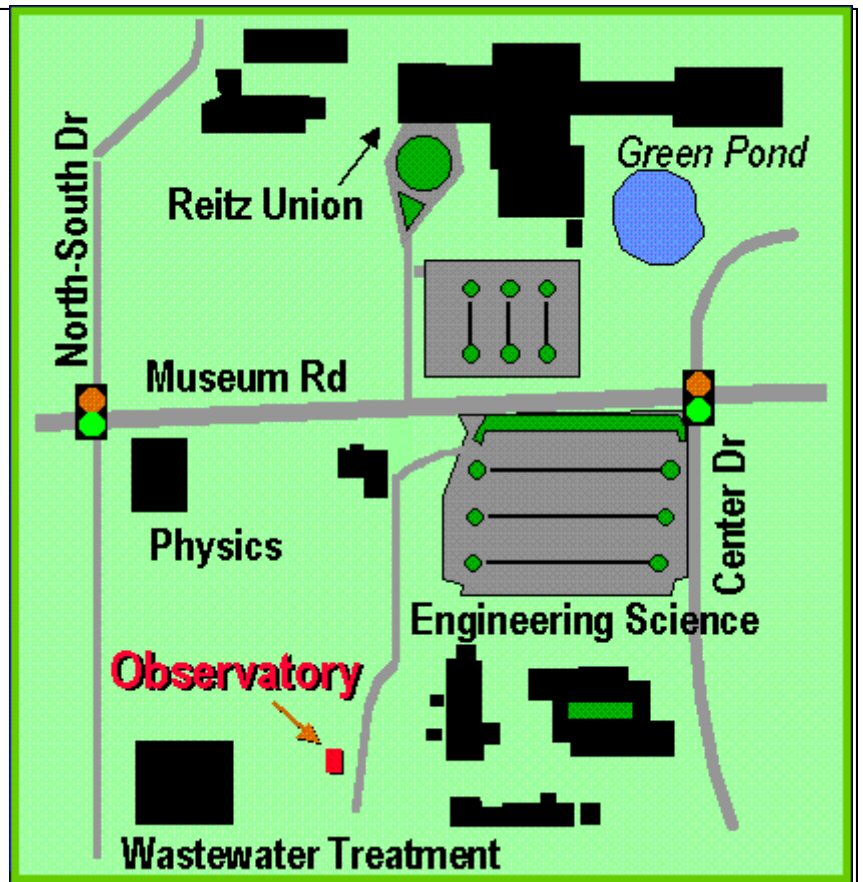
Find out more about the Space Technology 6 "Autonomous Sciencecraft" technology experiment at nmp.nasa.gov/st6/TECHNOLOGY/sciencecraft_tech.html, and the use of the technology on the Mars Rovers at nmp.nasa.gov/TECHNOLOGY/infusion.html. Kids can visit spaceplace.nasa.gov/en/kids/nmp_action.shtml and do a New Millennium Program-like test at home to see if a familiar material would work well in space

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

UF Campus Teaching Observatory Public Night

Join David Clark for the UF Observatory Public Night on Friday nights from 8:30 till 10:00pm at the Campus Teaching Observatory. Recent observing highlights included:

- ◆ The Moon
- ◆ Globular cluster M15
- ◆ Andromeda Galaxy
- ◆ Double Clusters - including Alberio, Epsilon Lyrae, Gamma Andromeda
- ◆ Pleiades and Orion Nebula



Caption:

The top half of this image is part of a series of images of a passing dust devil on Mars caught by Spirit. In the bottom half, the image has been filtered to remove everything that did not change from one image to the other. Notice the faint track left by the dust devil. Credit NASA/JPL/Mark T. Lemmon, Univ. of Arizona Lunar and Planetary Laboratory.

ATM-OBSERVERS CORNER (and DARKSKY).....Chuck Broward

"Ooooh, I see the dot!" This was the awed cry of a youngster seeing the tiny disc of Mercury starting its transit of our Sun. It is responses like this that make me feel our public outreach functions are really worth the time and the effort that goes into making them a success. A special "Thanksgiving" to all of you that took part in the transit activity on the UF campus recently. It was a hoot!

For me, the event was memorable in part because I had two toys coupled to my C-8 SCT telescope...a Denkmeier binoviewer, and a digital SLR (Nikon D-80) camera. I decided over the past year or so that at my age it would be worth it to acquire some useful observing tools that would keep me busy for the next few years of my life!

The binoviewers have become a standard item on my C-8. They are easy to use and seem to deliver a higher quality image to my brain. I cannot say for certainty, but I think that using two eyes gives the brain a chance to sort through all the floaters, optical defects of each eye, and combine the best parts of what each eye can deliver into a more usable image. I hope to test this idea in 2007. I use the binoviewers mostly on the C-8 because it requires less fiddling than the DOB. Using them on the DOB requires swapping corrector lenses and adding weight to balance the 'scope.

Another astro item I want us as a ATM-OBSERVER group to explore is collimation of our equipment. Our resident Luna-tic, Bob O'Connell, wandered around at the transit event with his collimation eyepiece. I noted that my C-8 was a tad out of alignment, and a few days later verified and corrected the mis-collimation using a star test. Took a few minutes, was easy, and turned a good scope into a great scope again. We will spend some time on this area at a ATM meeting this coming year!

I put together a presentation a few weeks ago to inform some of our community about controlling light pollution. I used some pictures shot locally, and some material from the International Dark-sky Association. The program created some interest and several of the participants didn't realize that they actually had some power to change things via the existing infrastructure of our local government.. Our club is working with the IDA to promote dark sky, but I think we can do more. Parts of Gainesville are well lit, other areas are, well, OVERLY LIT! Perhaps some of us can take a more active role this coming year in effective lighting in our community.

I took a deep breath recently and plunked down some bucks for a Nikon digital SLR. I also acquired via Astromart an adapter (\$20) to connect the body of the camera to my telescopes. The C-8 and the Williams 66 mm scope were easiest to use. Because the C-8 is a 2000 mm focal length scope, and the camera sensor is about 66 percent of a normal 35 mm frame, the resulting combination equals almost 3000 mm focal length! A lot of magnification. To capture lunar and planet images is not too difficult...set the camera on manual, and take good notes while messing around (You will need the notes to remember what works!). Deep sky objects require a well aligned mount and long exposures, and a lot of in-computer manipulation after the image capture. I hope we can have some imaging sessions this coming year so that we can learn from one another! It should be noted that quality sky helps image quality!

Recently I bought on Astromart a William Optics 66 mm refractor. It was inexpensive, well built, and a pretty good performer. I took it to the West Indies and actually observed two nights on the beach. The sky was turbulent! I could see four stars in the Trapesium but could not split the double stars in Gemini. So, the jury is out on the usefulness of the scope as an observing tool. I think a knock-down six inch dob might be more fun (another ATM project?). But, the 66 mm makes a bang-up telephoto lens for the new camera, and might ride piggy-back on the C-8 for deep sky stuff.

Everyone have a great Holliday season. Be thinking of the coming year and what we can do to make observing better in the north Florida area!

Chuck Broward

Monthly Club Meeting:

Tuesday, January 9th, 2007, 7:00 p.m. EST

Speaker: To Be Announced

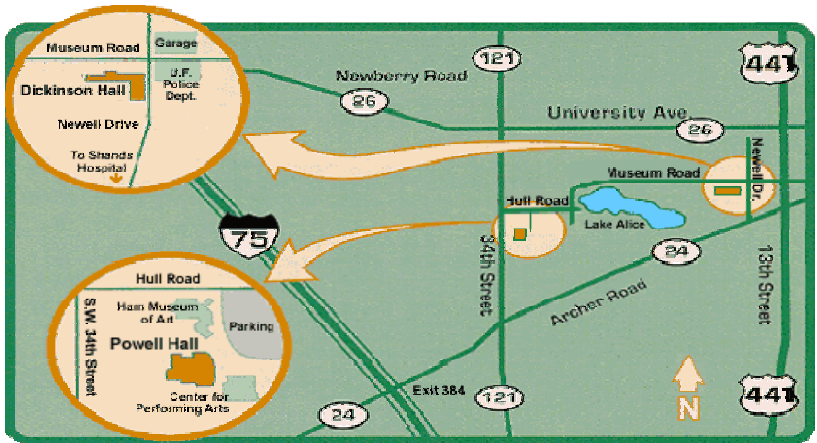
Title: To Be Announced

Location: Powell Hall, Florida Museum of Natural History
 (Lucille T. Maloney Classroom), UF Campus,
 Gainesville, Florida

AAC Meeting Location

AAC regular meetings are held on the second Tuesday of each month at **7:00 p.m.** at the Florida Museum of Natural History, **Powell Hall**, in the Lucille T. Maloney Classroom, on UF campus, unless otherwise announced. All meetings are free and open to the public. Join us for some great discussions and stargazing afterwards.

Please visit our website for more information (floridastars.org).



STAR PARTY SCHEDULE: Upcoming Events - 2006

Star Party	Date 2007	Location Check the website for directions and map	Start/End Time
AAC January Star Party	Saturday, January 20th	Bob Jacobs	Sunset 5:57 pm EST At 7:00 a beginners-only demonstration of the operation of one of the club's loaner telescopes
Friends of Paynes Prairie	Saturday, February 10th	Hickory Ranch	7:00 pm to 9:00 pm EST (Sunset 6:15 pm EST)
AAC February Star Party	Saturday, March 17th	Gary Cook's Residence	Sunset 6:20 pm EST
AAC April Party	Saturday, April 14th	Hickory Ranch (Dues-paying AAC members and their guests ONLY)	7:00pm - midnight EDT (Sunset 7:56 pm EDT)

Executive Council Meeting Minutes

September 5, 2006, New Century Buffet Restaurant

Attending: Tandy Carter (TC), Scott McCartney (SM), Bill Helms (BH), Thomas Olmsted (TO), Chuck Broward (CB), Howard Cohen (HC), Marian Cohen (MC), and Mike Toomey (MT)

The meeting was called to order by the president BH at 7:05 p.m. ET

TO gave the treasurer's report. There is \$989.23 in the checking account and \$5,998.31 in the savings account. Income for the previous month included \$5.09 in interest and \$84 in dues and contributions. Jackie Owens received \$121.44 for newsletter expenses. There are 75 paid members.

SM moved to approve the minutes of the last meeting. HC seconded and the minutes were approved.

Club Telescopes-

8" Dob	- Annie Welch	Museum Scope (6" Equatorial Newtonian)	- Don Loftus
Celestron C8	- Gary Cook	4.5 Reflector	- Marianne Gamble
8" Parks Equatorial Newtonian	- Don Loftus	RLT	- Don Loftus

Star Parties- The Gold Head Star Party is scheduled for October 21. There will be a picnic at 4:30 p.m.

It was decided that if members bring guests to star parties they should attend with their guest or let the star party chair know about it.

BH will submit information for the web site on the proper procedure to donate a telescope the AAC.

Transit of Mercury:

A meeting will soon be held with Jamie Creola. Astronomy Magazine has sent some sample materials. They include a four season star chart and a solar system chart. None of them are pertinent to the transit of Mercury. The Astronomical League also does not have appropriate materials.

An e-mail will be sent to the list reminding members of the September 30 deadline for ordering shirts and hats.

There is no custodian for the Parks telescope. It was decided to fix the telescope before finding a custodian.

MT gave the board members a list of rules for use of the storage space that we were inspecting. SM moved that the AAC accept MT's invitation to use Suite E for storage and other club activities. TO seconded the motion and it passed.

TO and CB now have keys to the space. Access will be limited to officers and board members. Board members were instructed to bring information to the next meeting about possible items that should be stored in the space.

There has been a change to the e-mail lists. A new list was started which is a discussion list for things dealing with ATM or observing. At the present time there are nine subscribers. The general membership will be reminded at the general meeting about this new list.

The City's Division of Cultural Affairs requested the AAC write a position letter to the Gainesville Sun about the status of the Pluto monument in the Gainesville Solar Walk. HC read a draft letter about this to the board. TC moved to accept HC's letter if it was modified so it indicated that it was the AAC's official position on Pluto and not the City or any other organization. SM seconded the motion and it passed.

There was a short discussion about reviving the policy of giving thank you certificates to speakers. No decision was made.

TC moved for adjournment and SM seconded. The meeting was adjourned at 8:55 p.m. ET.

Respectfully submitted,

Marian Cohen, Secretary

Executive Council Meeting Minutes

October 3, 2006, New Century Buffet Restaurant

Attending: Howard Cohen (HC), Bill Helms (BH), Tandy Carter (TC), Scott McCartney (SM), Mike Toomey (MT), Thomas Olmsted (TO), Bob O'Connell (BO), and Marian Cohen (MC)

The meeting was called to order by the president BH at 7:10 p.m. EDT.

TO gave the treasurer's report. There is \$1,085.26 in the checking account and \$5,998.31 the savings account. The income for the month was \$96 in dues. There were no expenditures. There are 80 paid members for 2006 and 6 paid members for 2007.

TC moved to approve the minutes of the last meeting. SM seconded and the minutes were approved.

Club Telescopes:

8" Dob	- Rich Russin	Museum Scope (6" Equatorial Newtonian)	- Don Loftus
Celestron C8	- Gary Cook	4.5 Reflector	- Marianne Gamble
8" Parks Equatorial Newtonian	- Don Loftus	RLT	- Don Loftus

Star Parties - MT reported that is no change in the arrangements for the star party at Gold Head Branch State Park. The website that gives instructions for donating a telescope to the AAC has been done.

Transit of Mercury - BH has been notified by the Florida Museum of Natural History that a meeting will be held around October 16. TO, SM, TC and MT will attend. MT will have a sign up sheet at the general meeting.

Shirts and Hats - MC reported that they have been ordered and will be ready for the transit of Mercury.

Nominating Committee Results (MT):

President - Bill Helms, Vice President - Howard Cohen, Treasurer - Larry Friedberg,
Secretary - TBA Board Members - Bob O'Connell, Tandy Carter and Thomas Olmsted
Scott McCartney has agreed to be program chairman.

Warehouse - MT has moved some shelves into the space.

TC moved to allow SM and MT to spend up to \$50.00 for blinds for the warehouse. TO seconded the motion and it passed.

The ATM group will meet at the warehouse in October. MT and CB will work out the details.

SM will make arrangements for the club holiday party in December.

TC moved that the club publish new brochures without the officers' names. TO seconded the motion. SM amended the motion so that 100 brochures with the current officers' names will be ordered. TO seconded and the amended motion passed. HC will update the brochure and SM will have them printed.

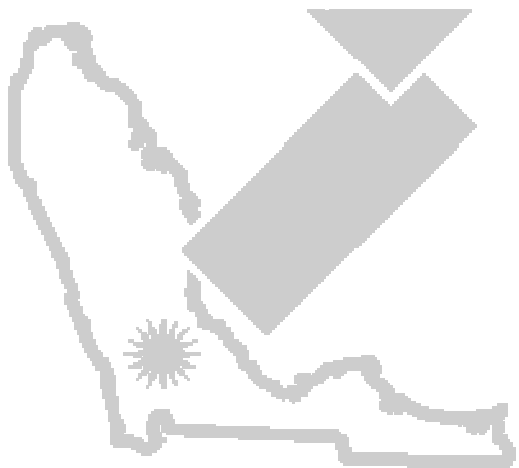
A retreat in January will be discussed at the November board meeting.

TC moved for adjournment and TO seconded. The meeting was adjourned at 8:00 p.m. EDT.

Respectfully submitted,
Marian Cohen
Secretary

FirstLight

December 2006 / January 2007



FirstLight
Newsletter of the Alachua Astronomy Club, Inc.
P.O. Box 13744
Gainesville, Florida 32604-1744
Web: www.floridastars.org
Email: florlight@floridastars.org